

KC DX NEWS

ABØX-EDITOR

KCDXC Website: <http://www.kcdxclub.com/>

OCTOBER 2021

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NEXT KCDXC MEETING: OCT. 25 -The Oct. KCDXC meeting will be a virtual meeting on the 25th, at 6:30 PM on Zoom. Like last time KØVXU will send out an invitational link to members. The famous Pie Eating Contest will be at the Zoom meeting hosted by KØXM.

BEAUTY IS IN THE EYE OF THE BEHOLDER DE KCDXC MEMBER RA3R, ROMAN:



Thanks! Roman! Great pics! See more of RA3R's shack and QSL on page 3 of this issue.

KCDXC DXCC HONOR ROLL

Call	Mixed	CW	Phone	DIGI	IOTA	160	6 M DXCC	DX Challenge
AB0X	357	353	349	232		225	37	2380
W0GJ	354	344	354	292		236	20	2799
N0RB	353	347	351				23	2269
K0CA	350	349	350	331	318	112		2631
N0CWR	350	349	350	326	975	202	66	2890
NX0I	350	349	347	244		208	4	2502
K3PA	350	348	345	319		188	36	2732
K0HQW	349	333	347			33		1352
KS0DX	347	318	348	129	360			2218
K4SV	346	340	344	337		301	87	2852
AC0A	348	318	348		838		15	2223
K0VXU	348	335	331	265	439	143	2	2295
K0GY	344	340	344	290			5	2295
KB0X	336							
K0AP	334	331	325	295		47	8	2353
W0QQ	334	240	332	254	151	111	25	1808
K4SX	331	277	314	146		52		1617
KE5BR	330	177	297	79				742
WA0WOF	330							
K0THN	329	314	284		179	1		
W0MB	325	229	324	251				1849
RA3R	325	241	290	112		83		1412
W0FS	322	270	295	230	657	181		1165
K0XM	321	282	274	42	26			1770
AA0MZ	312	290	292	220	532	44	20	1296
AC0C	310	306	267	243	160	128	3	1852
K0IZ	300		300					
NS0D	263	219	142	130		3	2	
W0XE	248	216	193	14				833
AI60	249	217	193	205		19	10	936
AD0K	226	214	80	85	183	22	3	888
W0DR	225	30	174	70		5	7	622
N9GB	203							
N0EG	193	159	141	90		1	3	539
KS0AA	172	75	84	154		3		507
W0ZAP	140	37	75	110		18	2	382
WD0SRI	63	17	56			1	1	

Red indicates member is at the top of the DXCC Honor Roll in that respective class. Totals are with deletions.

NOTE: When changes of DXCC totals are sent in to me, they are immediately updated in the next month here in the newsletter.

Send to ab0x@kc.rr.com . All updates are shared with W0XE, for the KCDXC web page. Please only one update a month.

MORE FROM RA3R:



KCDXC ELECTIONS COMING IN NOVEMBER!

Nominations for officers will be accepted at the Oct. meeting of the club.

Tektronix 468 Digital Storage Oscilloscope Repair

Dual trace, 100MHz 25Ms/S scope.

Produced from 1980 to 1985. Cost \$6,270 or more depending on options in 1982.

I am writing this to describe a problem I had with this scope, how I fixed it and to document that process for myself. It is not intended to be a step by step how to. Hopefully it will serve as a caution to anyone that might have an older piece of electronics that might have these particular Mostek ROMs which apparently were a big problem back in the day. Pull them out if you can, read them and save the binary files.

Charles Hett K0THN September 6, 2021

I purchased one of these scopes about fifteen years ago. I have used it quite a bit with some problems. A few years ago, the main power supply bridge rectifier failed. It was a messy repair but I was able to get it working again without too much trouble.

This August, I turned it on to make some measurements and there was no picture and no sound. OK, the fan was running. There was some sign of life however. The input voltage attenuator position lights worked. The Horizontal sweep system would trigger as indicated by the Trigger light being on when it was supposed to be. There were no traces on the screen but the only thing I could see was a light flicker over the whole screen. The Beam Finder on Channel 2 seemed to kind of work but not on Channel 1. The Digital Storage display LED's were off and did not indicate anything at power up. This should have been an important clue but I didn't pick up on it right away.

I have the manuals in PDF form on CD for this and a lot of other Tektronix test equipment. I opened the files for the 468 and began to study the circuits. This manual is very difficult to use in PDF formant and it seems very disorganized.

So, reluctantly, I opened the thing up and started measuring power supply voltages. All seemed OK. There is a second power supply for the digital section of this scope and those voltages were OK too. So now, I began to fear that there was something wrong in the digital section.

At this point, I began to search the internet for 468 problems that others were having. I should have done this first. One person described almost exactly what I was seeing and have described above. He and several others were reporting that the Mostek MKB36000 series ROMs had gone bad in their scopes. Some called it "ROM rot". Vintage TEK/468 was the first place I found out about this. Some of these reports were only

fifteen or so years after the scopes were being manufactured. So since mine is in the neighborhood of thirty-five years old, it seemed there was a high probability that at least one the two ROMs in my scope had failed.

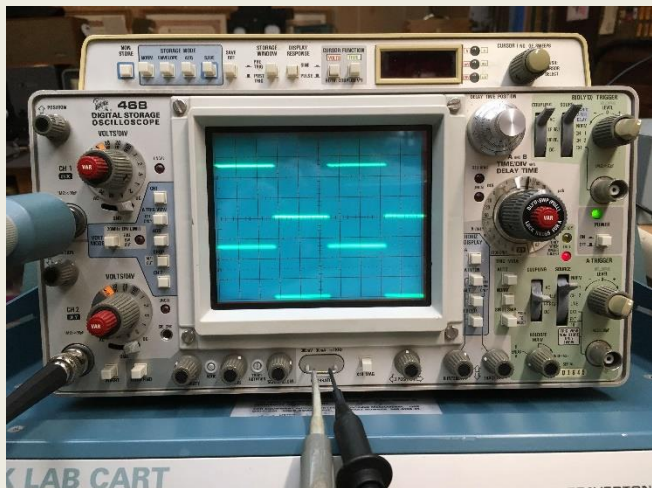
I have a second oscilloscope, a Tektronix 454, which I used to probe around in the digital section of the 468. The 8085 microprocessor Address Latch Enable (ALE) output which controls the multiplexing of the address and data lines for the ROMs was active for almost exactly 500ms at power up, then went quiet. The first thing the unit does at power up is a ROM test so I was fairly confident that indeed one of the ROMs had failed.

So how do I go about getting replacement ROMs for a thirty-five year old device? This turned out to be pretty easy. I found the binary files for the exact ROMs in my device at TEK Wiki 468 . This website also had the binary file for the Test ROM for the 468 which I did not have. The Vintage TEK website provided a link to an outfit called Retro Innovations that sold adapters that would convert the Mostek ROMs which are 24 pin DIPs to 2764 EPROMs which are 28 pin DIPs. So I ordered three adapters for \$5 each and five 2764 EPROMs so I would have some spares.

The next issue was how to get the 2764s programmed. I happened to have an old Needhams EMP-10 PROM Programmer. This programmer only works with DOS PCs. I also have an old Windows 98 PC that you can boot to DOS. Then it talks to the EMP-10 via the parallel printer port. Sometimes it pays to have some of the old stuff around.

I pulled the ROMs from the 468 (U565 #0000-#1FFF and U575 #2000-#3FFF), programmed the 2764s, put them in the adapters, and plugged them into the 468. I held my breath and turned the unit on and it worked, just as it was supposed to! It turned out that U575 was the bad memory.

In conclusion there is nothing really new here. I think this proves once again that the internet is an amazing resource.



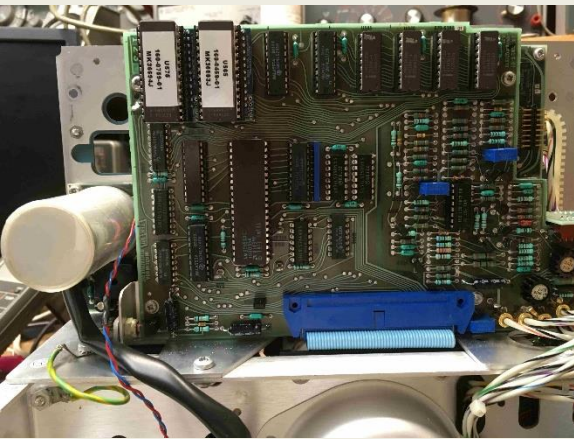
Tektronix 468 working again

TEK Wiki 468 <https://w140.com/tekwiki/wiki/468>

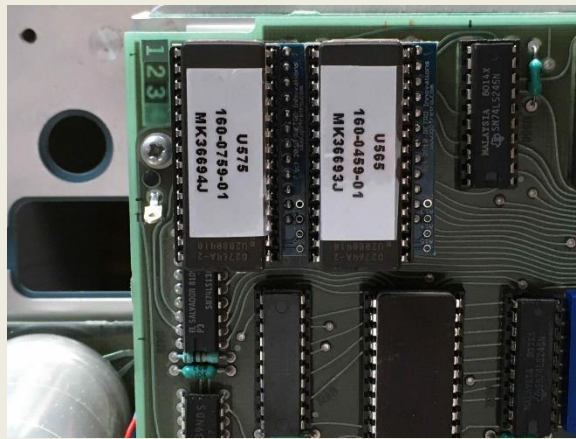
Vintage TEK <https://vintagetek.org/468-mostek-mkb36000-rom-repairs/>

Retro Innovations <https://store.go4retro.com/2364-adapter/>

468 EPROM Photos with Adapters



468 Processor Board
EPROMs in upper left



468 Processor Board
EPROMs Closeup



Test EPROM in
Adapter



EMP-10
PROM Programmer

TOWER & ANTENNA PICS

We are in need of pictures of towers and antennas from members for the upcoming newsletter. There are many members who have not sent in pics of their antennas! Send your pictures to ab0x@kc.rr.com . It doesn't have to be 200' tall, just be beautiful in the eyes of the beholder!

NEXT MONTH'S ISSUE :

Photos of AC0A's DX Machine will be featured in the newsletter. Bill sent over some neat pics of his antenna. K4SX will share an article from Bob Heil about changes in the electronics industry. Stay Tuned!

AC0C SHARES HALLICRAFTERS RECEIVER: WOODEN VERSION

Wow, look at this monster...

<https://groups.io/g/HallicraftersRadios/album?id=38069>

Not sure if you can see the link but a couple of the pics below. The wood working and condition is amazing.

73/jeff/ac0c

Regards,
Jeff Blaine



OK OLD TIMERS, WHAT MODEL IS THE RECEIVER??

THANKS, JEFF! TRULY BEAUTIFUL!!

DX NEWS & VIEWS

BY AB0X

At press time the DXpeditions of S90K and 3DA0RU are providing new ones for some in our group and filling many DXCC Band Slots for others! Both have excellent signals and hear well. I worked 3DA0RU on 30 and 40 Meter CW with one call with 100 watts.

The S90K was an easy work on 80 Meter CW, as well. The S90K has provided several members a new on 160M, also! Guess burying radials does make a difference! They both have been outstanding operations so far!!!

RUssian DXpedition Team presents:

the Kindom of Eswatini



3DA0RU

R'DXT
RUSSIAN DXPEDITION TEAM

October - November, 2021

Sao Tome 2021

Czech DX Pedition
2021

São Tomé e Príncipe
S90K

MEDITERRANEO DX CLUB
www.mdxg.org

QSLSERVICE

The flag of São Tomé and Príncipe, featuring a green top and bottom band, a white middle band, and a red triangle on the left side with two black stars.

More 3DA DX News:

3DA0, ESWATINI (Swaziland). All of a sudden, Kindom of Eswatini (Swaziland) has become a popular spot for DXpeditions. Three operations are planned for October and one for November. Here are the upcoming operations:

3DA0RU -- Russian DXpedition Team (RUDXT) will be active near Mbabane between October 7-22nd. Operators are Nick/R5EC, Vasily/R7AL, Vladimir/R9LR, Vasily/RA1ZZ, /RU3UR, Leo/RW9JZ, Slav/OK8AU and Wlodek/SP6EQZ. Activity will be on 160-6 meters using CW, SSB, FT8 and QO-100 satellite, with multiple stations. Suggested FT8 frequencies: 1836, 3567, 5357, 7056, 10131, 4095, 18095, 21095, 24911 and 28095 kHz. QSL via R7AL (direct or by the Bureau), ClubLog's OQRS (preferable) or LoTW. For more details and updates, see their new Web page at: <https://3da0.ru/en>

3DA0WW -- Latvian RSF team will be active as 3DA0WW from eSwatini between October 12-26th. Operators are Yuris/YL2GM, Jack/YL2KA, Wald/ US7IGN, Sasha/UT7UV, Pavlo/UU0JR and Vlad/UW7RV. Activity will be on 160-10 meters using CW, SSB, RTTY and FT8 (F/H). For suggested frequencies, see: <https://lral.lv/3da0ww/freq.html> QSL via YL2GN (direct) or ClubLog's OQRS (direct and by the Bureau). The log will be uploaded to LoTW six months after the end of the operation. For more details and updates, see: <https://lral.lv/3da0ww/index.html>

3DA0RR -- There have been reports that Roman Vega (aka Romeo Stepanenko, 3W3RR [also to name a "few" other callsigns -- 1S0RR, 1S0XV, 1S1RR, 4L/AH0M, 5A0RR, 9D0RR, R3A/3W3RR, UB5JRR, XE2/AH0M, YA0RR and P5RS7]) is expected to be active as 3DA0RR between October 14-16th. ADDED NOTE: Even if Romeo's 3DA0RR operation takes place, his operation will probably not count. He has been banned/disqualified from participation in the DXCC program (in any manner). This was activated by the ARRL Awards Committee after they reviewed all of the documentation for Romeo's 1992-93 P5RS7 North Korea operation. It was also announced in ARRL DX Bulletin (#11) in 1996:

<http://www.arrl.org/w1aw-bulletins-archive/ARLD011/1996>

3DA0LP -- Lionel, ZS6DPL, is once again active as 3DA0LP from Manzini between October 11-15th and again between November 1-5th. Activity is limited due to work. He does operate on FT8. No other details are available.

CLUBLOG ANNUAL MOSTED WANTED DXCC LIST

DXCC'S MOST WANTED (ClubLog). The "DXCC Most Wanted" entities list has been updated on ClubLog as of October 6th. The list contains 340 entities.

The following are the top 26 entities:

- | | |
|----------------------------|--|
| 1. P5 DPRK (North Korea) | 14. KH4 Midway Island |
| 2. 3Y/B Bouvet Island | 15. ZS8 Prince Edward & Marion Islands |
| 3. FT5/W Crozet Island | 16. PY0S Saint Peter and Paul Rocks |
| 4. BS7H Scarborough Reef | 17. PY0T Trindade & Martim Vaz Islands |
| 5. CE0X San Felix Islands | 18. KP5 Desecheo Island |
| 6. BV9P Pratas Island | 19. SV/A Mount Athos |
| 7. KH7K Kure Island | 20. VP8S South Sandwich Islands |
| 8. KH3 Johnston Island | 21. KH5 Palmyra & Jarvis Islands |
| 9. 3Y/P Peter 1 Island | 22. ZL9 New Zealand Subantarctic Islands |
| 10. FT5/X Kerguelen Island | 23. EZ Turkmenistan |
| 11. FT/G Glorioso Island | 24. FK/C Chesterfield Island |
| 12. VK0M Macquarie Island | 25. YK Syria |
| 13. YV0 Aves Island | 26. JD/M Minami Torishima |

DE K0XM:

VK has finally allocated contest calls in the format VK#A and also VJ and VL Prefixes. A few stations will be on in the CQWW SSB in a new guise - VK4KW for example should be signing VJ4K.

It has been the result of over ten years of negotiation by the VK Contest Club (VKCC) and others.

Hope to hear you on the bands , 73, Trent, VK4TS (VK4T) M0HTT WW7TT Po Box 275 Mooloolaba QLD 4557 Mobile 0408497550

HANDY INFO:

LOGS ONLINE AT CLUBLOG.ORG THIS WEEK.....

<https://secure.clublog.org/logsearch/3D2USU> (Updated)

<https://secure.clublog.org/logsearch/3DA0RU>

<https://secure.clublog.org/logsearch/9G5FI> (Updated)

<https://secure.clublog.org/logsearch/KP4/AB2RF> (Updated)

<https://secure.clublog.org/logsearch/S90K>

YASME FOUNDATION EXCELLENCE AWARD -- The Yasme Excellence Award is presented to individuals and groups who, through their own service, creativity, effort and dedication, have made a significant contribution to amateur radio. The contribution may be in recognition of technical, operating or organizational achievement, as all three are necessary for amateur radio to grow and prosper. The Yasme Excellence Award is in the form of a cash grant and an individually-engraved crystal globe.

The Board of Directors of The Yasme Foundation is pleased to announce the latest recipients of the Yasme Excellence Award:

Steve Babcock, VE6WZ -- Steve is recognized for his contribution to the art of low-band antennas and remote operating. Steve has made available to the amateur community countless hours of instructional videos, for free, on his YouTube channel and QRZ.COM page.

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The Yasme Foundation is a not-for-profit corporation organized to support scientific and educational projects related to amateur radio, including DXing (long distance communication) and the introduction and promotion of amateur radio in developing countries. For additional information about The Yasme Foundation, visit our website at (www.yasme.org).

Ward Silver, N0AX, President, The Yasme Foundation

More DX News, J5 Activity:

J5T & J5HKT DXPEDITION TO GUINEA BISSAU NEWS (Reminder). Members of the Italian DX Team are now active from Bubaque Island (AF-020), Guinea Bissau, as J5T (CW-SSB-RTTY) and J5HKT (FT8) until October 22nd. Activity will be on 160-10 meters using CW, SSB, RTTY and FT8. They will have 6 operators and 4 stations active. QSL via I2YSB direct, OQRS or LoTW. For more info, see OPDX.1520. Their official Web site is at:

<http://www.i2ysb.com/idt> Real-time online logs during the DXpedition on:

<http://win.i2ysb.com/logonline/>

THANKS OHIO/PENN DX BULLETIN AND K0XM!

CHECK OUT THE KCDXC FACEBOOK PAGE. IT HAS BEEN UPDATED AND IS AVAILABLE FOR COMMENTS AND POSTINGS FROM EVERYONE. THANKS, KØXM!

***KANSAS CITY DX CLUB
KEEPING THE KCDXC DAYTON TRADITION ALIVE!***



